Amendments to the Specification:

Please cancel the entire Abstract and substitute the following new Abstract:

Abstract

System resources are pooled and allocated in an optimal manner to handling telephone voice traffic or to handling computer data traffic. A combination of mechanisms is used to achieve higher statistical multiplexing on a network interface by dynamically adjusting the multiplexing. The system: 1) Provides homogeneous access to DS0 trunk resource by both voice and data traffic, resulting in a larger resource pool. 2) Partially normalizes the class of service characteristics of data traffic to make it more predictable and can dynamically adjust the bandwidth such that requests for resources can be honored with a higher success rate, and 3) Maintains multiple qualities of service for multiple voice and data streams drawing from a single resource pool. Data traffic is normalized into flows, each of which has an assigned priority and bandwidth is allocation to each of the flows.